



## Module PMRF-ISSS007/II/2023

# Introduction to Quantum Mechanics

Name of the PMRF student

**SUBHADIP SAHA**

Details of the content of the module

### Required background of the students taught

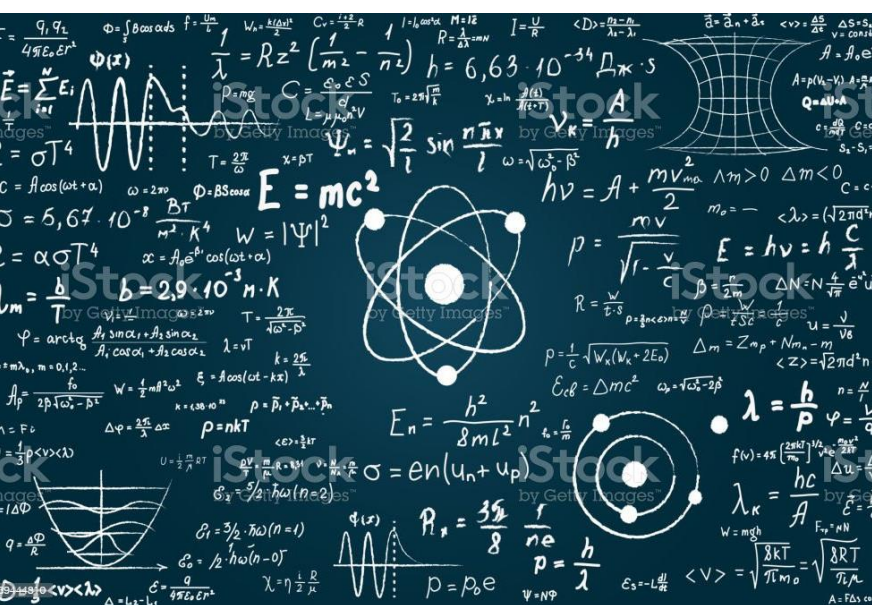
Students from any disciplines of science are welcome. Understanding of Fourier series and Fourier transform would be really helpful.

The following topics will be covered (maybe, in a different sequence).

1. Historical background of Atomic Mechanics.
2. Complex numbers and Fourier transform.
3. Principle of superposition.
4. Schrodinger equation.
5. Solution of Schrodinger equation for quantum harmonic oscillator.
6. Quantum harmonic oscillator vs. classical harmonic oscillator.
7. Theory of angular momentum & spin.
8. Hydrogen atom problem.
9. Identical particles (Optional).
10. Approximation methods (time independent).

### Online session coordinator

Will be chosen from the list of registrants



### Schedule of the module

Monday -> 6:00 pm to 7:00 pm

Friday -> 3:00 pm to 4:00 pm

Start date -> 05/05/2023

End date -> 18/08/2023

Meeting link : Will be shared later

Link

Contact email ID: [issf.forum@gmail.com](mailto:issf.forum@gmail.com)

Registration link:

<https://forms.gle/i17NEXovUt1T9N26>

Google Sheet (Mandatory):

[https://docs.google.com/spreadsheets/d/1aCWTVDAAh3nEabLydZvniHbE\\_jzTFng26flxRPG-Ew/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1aCWTVDAAh3nEabLydZvniHbE_jzTFng26flxRPG-Ew/edit?usp=sharing)

